

S/N 10/714,355

Amendment dated June 14, 2005

Response to Office Action mailed March 14, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1-18. (Canceled)

19. (New) A solid detergent composition comprising:

a solidified mixture comprising:

an alkali metal silicate having a $M_2O:SiO_2$ ratio of about 1:1 to 1:5;

about 10 to 80 wt-% of Na_2CO_3 ;

an effective amount of an aminocarboxylate hardness sequestering agent, wherein the aminocarboxylate comprises diacetic acid, triacetic acid, tetracetic acid, or pentaacetic acid;

about 5 to 20 wt-% anhydrous sodium carbonate; and

a binding agent comprising sufficient amounts of hydrated sodium carbonate and aminocarboxylate to form the composition;

wherein the mixture hardens to a solid form and the composition provides metal protection.

20. (New) The composition of claim 19, wherein the aminocarboxylate comprises diacetic acid.

21. (New) The composition of claim 20, wherein the diacetic acid comprises N-hydroxyethyliminodiacetic acid.

22. (New) The composition of claim 19, wherein the aminocarboxylate comprises triacetic acid and nitrilotriacetic acid (NTA).

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23. (New) The composition of claim 19, wherein the aminocarboxylate comprises tetracetic acid.

24. (New) The composition of claim 19, wherein the tetracetic acid comprises ethylenediaminetetracetic acid (EDTA) or N-hydroxyethyl-ethylenediaminetriacetic acid (HEDTA).

25. (New) The composition of claim 19, wherein the pentaacetic acid is diethylenetriaminepentaacetic acid (DTPA).

26. (New) A solid detergent composition comprising:
a solidified mixture comprising:

bleaching agent, enzyme, or bleaching agent and enzyme;

an alkali metal silicate having a $M_2O:SiO_2$ ratio of about 1:1 to 1:5;

about 10 to 80 wt-% of Na_2CO_3 ;

an effective amount of an organic phosphonate hardness sequestering agent;

about 5 to 20 wt-% anhydrous sodium carbonate;

a binding agent comprising sufficient amounts of hydrated sodium carbonate and phosphonate, to form the composition; and

no second source of alkalinity or less than a solidification interfering amount of a second source of alkalinity;

wherein the mixture hardens to a solid form and the composition provides metal protection.

27. (New) The composition of claim 26, wherein the enzyme comprises lipase, protease, or amylase.

28. (New) The composition of claim 26, wherein the bleaching agent comprises an active oxygen source.

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29. (New) The composition of claim 26, wherein the organic phosphonate comprises:

aminotri(methylenephosphonic acid);
1-hydroxyethane-1,1-diphosphonic acid;
aminotri(methylenephosphonate), sodium salt;
2-hydroxyethyliminobis(methylenephosphonic acid);
diethylenetriaminepenta(methylenephosphonic acid);
diethylenetriaminepenta(methylenephosphonate), sodium salt;
hexamethylenediamine(tetramethylenephosphonate), potassium salt;
bis(hexamethylene)triamine(pentamethylenephosphonic acid);
or mixtures thereof.

30. (New) The composition of claim 26, wherein the composition is provided in the form of a powder, a pellet, a block, or a mixture thereof.

31. (New) The composition of claim 26, wherein the composition comprises about 0.1 to less than about 2.0 moles of water per mole of sodium carbonate.

32. (New) The composition of claim 26, wherein the organic phosphonate sequestrant comprises a potassium phosphonate present in an amount of about 0.5 to 20 wt-% of the mixture.

33. (New) The composition of claim 26, wherein the composition comprises about 3 to 20 wt-% of the organic phosphonate and additionally comprises a tripolyphosphate sequestrant.

34. (New) The composition of claim 26, wherein the composition comprises about 10 to 30 wt-% of the alkali metal silicate.

35. (New) A solid detergent composition comprising:

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solidified mixture comprising:

alkali metal silicate having a $M_2O:SiO_2$ ratio of about 1:1 to 1:5;
about 10 to 80 wt-% of Na_2CO_3 , comprising anhydrous sodium carbonate
and hydrated sodium carbonate;
organic phosphonate; and
effective solidifying amount of binding agent comprising the hydrated
sodium carbonate and the organic phosphonate;
wherein the mixture hardens to a solid form and the composition provides metal
protection.

36. (New) A solid detergent composition comprising:

a solidified mixture comprising:

about 10 to 80 wt-% alkaline source; the alkaline source comprising alkali
metal hydroxide, alkali metal carbonate, alkali metal silicate or metasilicate, alkali
metal borate, ethanolamines, amines, or mixtures thereof;
alkali metal silicate having a $M_2O:SiO_2$ ratio of about 1:1 to 1:5;
an effective amount of an organic phosphonate hardness sequestering
agent.

37. (New) The composition of claim 36, wherein the composition comprises
about 20 to 55 wt-% alkaline source.

38. (New) The composition of claim 36, wherein the composition comprises
about 45 to 55 wt-% alkaline source.

39. (New) The composition of claim 36, wherein the alkaline source
comprises sodium hydroxide, potassium hydroxide, sodium carbonate, potassium
carbonate, sodium borate, potassium borate, or mixtures thereof.

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40. (New) The composition of claim 36, wherein the composition is provided in the form of a powder, a pellet, a block, or a mixture thereof.

41. (New) A solid detergent composition comprising:
a solidified mixture comprising:

an alkali metal silicate having a $M_2O:SiO_2$ ratio of about 1:1 to 1:5;

about 10 to 80 wt-% of Na_2CO_3 ;

an effective amount of an aminocarboxylate hardness sequestering agent;

about 5 to 20 wt-% anhydrous sodium carbonate; and

a binding agent comprising sufficient amounts of hydrated sodium carbonate and aminocarboxylate to form the composition;

wherein the mixture hardens to a solid form and the composition provides metal protection.

42. (New) The composition of claim 41, comprising about 6-60 wt-% aminocarboxylic acid.

43. (New) The composition of claim 41, wherein the aminocarboxylic acid comprises n-hydroxyethyliminodiacetic acid, nitrilotriacetic acid (NTA), ethylenediaminetetraacetic acid (EDTA), N-hydroxyethyl-ethylenediaminetriacetic acid (HEDTA), diethylenetriaminepentaacetic acid (DTPA), or mixtures thereof.

44. (New) The composition of claim 41, further comprising enzyme.

45. (New) The composition of claim 41, further comprising bleaching agent.

46. (New) The composition of claim 41, wherein the composition is provided in the form of a powder, a pellet, a block, or a mixture thereof.